

## EAST Search History

| Ref # | Hits | Search Query                 | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|------------------------------|---|------------------|---------|------------------|
| S1    | 0    | charge adj gain adj failure  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:49 |
| S2    | 405  | charge adj gain              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:50 |
| S3    | 6    | charge adj gain with fail\$3 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:50 |
| S4    | 0    | charge adj gain and HTOL     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:50 |
| S5    | 87   | gray adj code adj generator  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:56 |
| S6    | 258  | 711/218.cc1s.                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:51 |
| S7    | 3    | S5 and S6                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:51 |
| S8    | 0    | S2 and S5                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/04/28 11:52 |

## EAST Search History

|     |      |   |   |    |    |                  |
|-----|------|---|---|----|----|------------------|
| S9  | 5399 | gray adj code                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 11:52 |
| S10 | 0    | S2 and S9                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 11:52 |
| S11 | 151  | gray adj code adj converter               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 13:06 |
| S12 | 0    | TEOH-WAN-YEN.in.                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 12:54 |
| S13 | 0    | LAW-CHE-SEONG.in.                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 12:57 |
| S14 | 14   | LAW-CHE.in.                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 12:57 |
| S15 | 208  | gray adj code adj sequence                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 13:06 |
| S16 | 3    | S15 and (365/230.03 365/230.06).<br>ccls. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 13:19 |

## EAST Search History

|     |       |                                       |   |    |    |                  |
|-----|-------|---------------------------------------|---|----|----|------------------|
| S17 | 43032 | cycl\$3 with address                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:11 |
| S18 | 1104  | cycl\$3 with address with transition  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:41 |
| S19 | 43032 | cycl\$3 with address                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:13 |
| S20 | 71    | S19 same gray adj code                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 18:46 |
| S21 | 26993 | cycl\$3 near5 address                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:29 |
| S22 | 52    | S21 same gray adj code                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:25 |
| S23 | 34    | S21 same gray adj code same binary    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 20:18 |
| S24 | 641   | cycl\$3 near5 address with transition | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:38 |

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|     |     |  |  |    |    |                  |
|-----|-----|--|--|----|----|------------------|
| S25 | 0   | S24 same gray adj code same binary               | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 16:30 |
| S26 | 2   | S24 same gray adj code                           | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 16:43 |
| S27 | 3   | S23 and flash                                    | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 16:37 |
| S28 | 0   | S23 and charge adj gain                          | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 16:37 |
| S29 | 0   | S24 and charge adj gain                          | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 16:37 |
| S30 | 4   | cycl\$3 near5 address with bit near2 transition  | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 16:39 |
| S31 | 1   | cycl\$3 near5 address with transition with flash | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 16:43 |
| S32 | 218 | cycl\$3 near5 address with flash                 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 19:05 |

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|     |    |   |   |    |    |                  |
|-----|----|---|---|----|----|------------------|
| S33 | 13 | S18 and gray adj code   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:03 |
| S34 | 2  | S18 same gray adj code  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:58 |
| S35 | 49 | (US-6137717-\$ or US-5523980-\$ or US-5982663-\$ or US-6157570-\$ or US-5278785-\$ or US-5784327-\$ or US-6000006-\$ or US-6006313-\$ or US-6166950-\$ or US-4999812-\$ or US-5003510-\$ or US-5212541-\$ or US-5267210-\$ or US-5412609-\$ or US-5438546-\$ or US-5577193-\$ or US-5621736-\$ or US-5671239-\$ or US-5754475-\$ or US-5757690-\$ or US-5854770-\$ or US-5873112-\$ or US-5883903-\$ or US-5896340-\$ or US-6064596-\$ or US-6067248-\$).<br>did. or (US-6122198-\$ or US-6125057-\$ or US-6147904-\$ or US-6154390-\$ or US-6178114-\$ or US-6222772-\$ or US-4933906-\$ or US-4958346-\$ or US-5231041-\$ or US-5245566-\$ or US-5282177-\$ or US-5313420-\$ or US-5319606-\$ or US-5355347-\$ or US-5359558-\$ or US-5359571-\$ or US-5369609-\$ or US-5398210-\$ or US-5402383-\$ or US-5412600-\$ or US-5475634-\$ or US-5497354-\$ or US-5509018-\$).<br>did. | USPAT   | OR | ON | 2006/04/28 16:51 |
| S36 | 0  | S35 and gray adj code   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:52 |
| S37 | 0  | S35 and charge near2 gain   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:58 |

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|     |      |   |   |    |    |                  |
|-----|------|---|---|----|----|------------------|
| S38 | 1060 | flash near cycl\$3  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 18:42 |
| S39 | 0    | S38 same gray adj code  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:58 |
| S40 | 8    | S38 and gray adj code   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 16:58 |
| S41 | 11   | ("4503490"   "4556960"  <br>"4903917"   "5088061"   "5115413"<br>  "5226134"   "5278967"  <br>"5386533").PN. OR ("5630086").<br>URPN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/04/28 17:19 |
| S42 | 2496 | test\$3 same flash same cycl\$3   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 17:35 |
| S43 | 7    | test\$3 same flash same cycl\$3<br>same gray  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 17:35 |
| S44 | 69   | test\$3 same memory same cycl\$3<br>same gray   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 17:36 |
| S45 | 13   | test\$3 same memory same cycl\$3<br>same gray adj code  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 17:47 |

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|     |      |   |  |    |    |                  |
|-----|------|---|--|----|----|------------------|
| S46 | 13   | test\$3 same memory same cycl\$3 same gray near2 code | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 17:37 |
| S47 | 5204 | voltage with overshoot                                | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 17:47 |
| S48 | 396  | voltage with overshoot and flash                      | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 17:47 |
| S49 | 1    | voltage with overshoot and flash and gray adj code    | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 17:48 |
| S50 | 7    | voltage with overshoot and gray adj code              | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 17:48 |
| S51 | 835  | gray adj code with address                            | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 18:29 |
| S52 | 0    | gray adj code with address with flash                 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 18:30 |
| S53 | 1    | gray adj code with address with \$volatile            | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 18:30 |

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|     |      |  |   |     |    |                  |
|-----|------|--|---|-----|----|------------------|
| S54 | 41   | gray adj code with flash               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 18:32 |
| S55 | 0    | "Novel Read Disturb Failure Mechanism" | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 18:33 |
| S56 | 3953 | flash same stress                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 18:34 |
| S57 | 1252 | flash with stress                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 18:34 |
| S58 | 6    | (flash same stress) and gray code      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2006/04/28 18:34 |
| S59 | 1951 | flash near2 cycl\$3                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 18:42 |
| S60 | 9    | flash near2 cycl\$3 and gray code      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2006/04/28 18:43 |
| S61 | 0    | flash near2 cycling and gray code      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2006/04/28 18:43 |

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|     |     |  |   |     |    |                  |
|-----|-----|--|---|-----|----|------------------|
| S62 | 0   | \$volatile cycling and gray code   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2006/04/28 18:43 |
| S63 | 0   | \$volatile near2 cycling and gray code                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2006/04/28 18:45 |
| S64 | 916 | grey code  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2006/04/28 18:45 |
| S65 | 5   | S19 same grey adj code   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 18:53 |
| S66 | 9   | charge gain and flash and (gray or grey)                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2006/04/28 18:54 |
| S67 | 0   | S32 and (grey gray) adj code   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 19:05 |
| S68 | 87  | (metastability meta-stability meta adj stability) and (gray grey) adj code | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 19:10 |
| S69 | 19  | S68 and ("365"/\$ "711"/\$ "710"/\$). ccis.                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR  | ON | 2006/04/28 19:15 |

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|     |       |                                  |   |    |    |                  |
|-----|-------|----------------------------------|---|----|----|------------------|
| S70 | 18363 | cycl\$3 with address with memory | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:52 |
| S71 | 216   | cycling with address with memory | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:20 |
| S72 | 1     | S71 and (gray greay) adj code    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:20 |
| S73 | 5     | cycling with address with flash  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:20 |
| S74 | 743   | cycling same address same memory | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:20 |
| S75 | 8     | S74 and (gray greay) adj code    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:21 |
| S76 | 38    | cycling same address same flash  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:21 |
| S77 | 1     | S76 and (gray greay) adj code    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:21 |

## EAST Search History

|     |     |   |   |    |    |                  |
|-----|-----|---|---|----|----|------------------|
| S78 | 187 | gray adj code near5 address same binary                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:43 |
| S79 | 128 | gray adj code near5 address with binary                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:49 |
| S80 | 62  | gray adj code near5 address with binary with (convert\$3 conversion)        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:44 |
| S81 | 65  | (gray grey) adj code near5 address with binary with (convert\$3 conversion) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:47 |
| S82 | 0   | S81 and cycling   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:48 |
| S83 | 2   | S81 and flash   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:48 |
| S84 | 25  | S81 and decoder   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:48 |
| S85 | 22  | S81 and transition  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/04/28 19:49 |

## EAST Search History

|     |     |  |  |    |    |                  |
|-----|-----|--|--|----|----|------------------|
| S86 | 133 | (gray grey) adj code near5 address with binary   | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 19:50 |
| S87 | 258 | 711/218.ccls.  | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 19:52 |
| S88 | 65  | S70 and S87  | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 19:52 |
| S89 | 1   | S88 and (grey gray) adj code   | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 19:53 |
| S90 | 4   | S18 and S87  | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 19:53 |
| S91 | 9   | S87 and (grey gray) adj code   | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/28 19:53 |
| S92 | 12  | ("4550431"   "4835712"   "5381518"   "5450363"   "5633636"   "5737142"   "5758192"   "6127948").PN. OR ("6308249").URPN. | US-PGPUB; USPAT; USOCR                             | OR | ON | 2006/04/28 19:55 |
| S93 | 24  | ("5577236"   "5659782"   "5784582"   "5787457"   "5802581"   "5802588"   "5893136").PN. OR ("5987574").URPN.             | US-PGPUB; USPAT; USOCR                             | OR | ON | 2006/04/28 20:01 |